

# Fact Sheet



## *For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act*

Permit Number: **R30-03300100-2011**  
Application Received: **March 25, 2011**  
Plant Identification Number: **03-054-033-00100**  
Permittee: **Dominion Transmission, Inc.**  
Facility Name: **Bridgeport Compressor Station**  
Mailing Address: **445 West Main Street, Clarksburg, WV 26301**

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Physical Location:	Bridgeport, Harrison County, West Virginia
UTM Coordinates:	567.05 km Easting • 4,355.39 km Northing • Zone 17
Directions:	Exit #125 off I-79. Take Route 73 North for approximately 0.5 mile. Station is located on the right.

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### **Facility Description**

Bridgeport Compressor Station is a natural gas compressor station owned and operated by Dominion Transmission, Inc. for the purpose of servicing a natural gas storage field. The station injects and withdraws natural gas based upon demand. The facility is covered by Standard Industrial Classification (SIC) Code 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of two (2) 1100 HP natural gas fired reciprocating engines, two (2) natural gas fired auxiliary microturbines rated at 60kw for emergency use, one (1) 2.5 MMBtu/hr natural gas fired boiler, one (1) 0.75 MMBtu/hr glycol dehydration unit with flare, one (1) 110 MMSCF/day dehydration unit still column with flare, and five (5) storage tanks of various sizes.

## Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2009 Actual Emissions <sup>3</sup>
Carbon Monoxide (CO)	65.51	35.76
Nitrogen Oxides (NO <sub>x</sub> )	186.54	102.20
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	1.21	0.72
Total Particulate Matter (TSP)	1.21	0.72
Sulfur Dioxide (SO <sub>2</sub> )	0.06	0.03
Volatile Organic Compounds (VOC)	83.38	51.59
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions	2009 Actual Emissions
Acetaldehyde	0.58	0.18
Acrolein	0.58	0.18
Benzene	0.14	0.04
Ethylbenzene	0.59	0.34
Formaldehyde	2.80	0.86
n-Hexane	0.12	0.10
Toluene	1.31	0.79
Xylene	1.60	0.88
Aggregate HAPs	7.72	3.36

<sup>1</sup> PM<sub>10</sub> is a component of TSP.

<sup>2</sup> All eight of the above HAPs are counted as VOCs; however, none are counted as PM in this case.

<sup>3</sup> Actual emissions have been transcribed from the 2010 Certified Emissions Statement Invoice, and represent emissions from January 1, 2009, through December 31, 2009.

## Title V Program Applicability Basis

This facility has the potential to 186.54 tpy of Nitrogen Oxides. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Transmission, Inc. – Bridgeport Compressor Station is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

## Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Control of PM from Combustion of Fuel in Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR10	Control of Sulfur Oxides
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits to Construct/modify
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. 63 Subpart ZZZZ	NESHAPs-MACT for RICE
State Only:	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
	40 C.F.R. §60.18	NSPS Flare requirements
	45CSR4	No objectionable odors.
	45CSR17	Control of Fugitive PM

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

### Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-1801F	12/18/2006	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

### Determinations and Justifications

In the following discussion, the terms "current permit" or "current Title V permit" mean permit R30-03300100-2007, unless otherwise noted. The following discussion concerns changes to the most recent permit.

- I. **40 C.F.R. 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.** The facility operates two (2) spark ignition reciprocating internal combustion engines (SI RICE), both of which are 2-stroke lean burn (2SLB) engines rated at 1,100-hp each. 40 C.F.R. 63 Subpart ZZZZ applies to stationary reciprocating internal combustion engines (RICE) at major and area sources of HAP (*cf.* 40 C.F.R.

§63.6585). The potential emissions of HAPs from the facility are less than major source thresholds; therefore, the facility is a non-major (*i.e.*, area) source of HAPs (cf. §63.6585(c)). DAQ is not taking delegation of the minor source provisions of 40 C.F.R. 63, Subpart ZZZZ. This is determined from 45CSR§34-4.1.d., which states, “Provisions under Subpart ZZZZ of 40 CFR Part 63 which apply to non-major area sources of hazardous air pollutants described in 40 CFR §63.6585(c) and (d) shall be excluded.” However, it is DAQ practice that Title V permits are to include the Subpart ZZZZ requirements for affected emission units. Such requirements will be included as a permit condition that states which emission units are subject to Subpart ZZZZ, and the compliance date. Other applicable requirements are included, but with a note specifying that they are subject to the compliance date. The following table sets out the pertinent Subpart ZZZZ requirements, and provides discussion concerning their applicability to the compressor engines and how the requirements are written in the renewal operating permit.

Section	Condition	Discussion
§63.6590(a)(1)(iii)	None	The compressor engines are affected sources, classified as <i>Existing stationary RICE</i> since they are located at an area source of HAP emissions and were constructed before June 12, 2006.
§63.6595(a)(1)	6.1.1.	The condition has been written for the applicable Subpart ZZZZ compliance date, which is in the last sentence of §63.6595(a)(1). The rule language has been modified for insertion into the permit only to exclude the non-applicable part concerning SI RICE located at major sources. In accordance with 45CSR§34-4.1.d., the state rule is not cited for this condition since the area source provisions of Subpart ZZZZ are excluded from 45CSR34.
§63.6603(a)	6.1.2.	<p>This section applies to existing stationary RICE located at an area source of HAP emissions (regardless of site rating horsepower), and refers to Tables 2d and 2b to Subpart.</p> <p>None of the requirements in Table 2b apply to the compressor engines since they are existing 2SLB SI engines.</p> <p>The applicable requirements of Table 2d are those for non-emergency, non-black start 2SLB stationary RICE, which are given in the permit condition. The language of the permit condition is taken from the header row and row 6 of Table 2d of Subpart ZZZZ. The last part of the requirement from Table 2d states, “after which time the non-startup emission limitations apply.” Since there are no applicable emission limitations for the compressor engines, this language will not be included in the last sentence of the condition. The footnote regarding the optional oil analysis program is part of the permit condition. The reference in the rule’s footnote has been corrected for the permit to refer to §63.6625(j), which is the applicable section for SI engines (Note that §63.6625(i) is for CI engines, and does not strictly apply to all requirements in Table 2d that reference the footnote).</p>
§63.6604	None	This section does not apply since it pertains to compression ignition engines, and the permittee’s engines are spark ignition.
§63.6605	None	While this section is broad and general in its scope, it does not, however, apply to the compressor engines since there are

Section	Condition	Discussion
		no applicable emission limitations or operating limitations for these units. By examining the title and contents of Tables 1b and 2b to Subpart ZZZZ, it has been determined that “operating limitations” may include catalyst pressure drop, and exhaust temperature. No emission limit or operating limit from this subpart is applicable in this case. Regardless of the fact that the permittee stated in the application that this section is applicable, it will not be included in the permit.
§63.6612(a)	None	This section is an applicable requirement that references Tables 4 and 5 of Subpart ZZZZ. However, none of the requirements in Tables 4 or 5 apply since they pertain to RICE that are subject to pollutant emission limitations or reductions. Therefore, this section does not apply to the engines.
§63.6615	None	This section does not apply since the engines are not subject to emission and operating limitations.
§63.6620	None	This section does not apply since the engines are not subject to emission and operating limitations.
§§63.6625(a) and (b)	None	These sections do not apply since the engines are not subject to requirements under Table 5 to Subpart ZZZZ (see discussion above concerning §63.6612(a)).
§63.6625(c)	None	This section does not apply since the engines do not fire landfill gas or digester gas.
§63.6625(d)	None	This section does not apply since the engines are located at an area source.
§63.6625(e)(5)	6.1.3.	This section is applicable since the engines meet the criteria given in that section. Therefore, the condition has been created to embody the maintenance plan requirement of §63.6625(e).
§63.6625(h)	6.1.2.	This section is applicable, and is actually part of the requirement in §63.6603(a) – Table 2d. Therefore, this section is also cited with condition 6.1.2.
§63.6625(i)	None	This section does not apply since it pertains to compression ignition engines, and the permittee’s engines are spark ignition.
§63.6625(j)	6.3.1.	This section is an applicable option to the oil change requirements of §63.6603(a) – Table 2d, Item 6. The language of this section has been written as a permit condition and modified to reference only item 6 of Table 2d to Subpart ZZZZ.
§63.6625(k)	None	This section does not apply since there is no applicable operating limitation that requires use of a temperature measuring device for any of the permittee’s engines.
§§63.6630, 63.6635, 63.6640	None	These sections do not apply since the engines are not subject to emission and operating limitations. The application states that §§63.6640(a) and (b) are applicable. However, these will not be included in the permit for the same rationale given above concerning §63.6605.
§63.6645(a)(5)	None	This section provides an exemption to the notification requirements (including the NOCS under 40 C.F.R. §63.9(h)) for an existing stationary RICE that is not subject to any

Section	Condition	Discussion
		numerical emission standards. Since the engines are not subject to Subpart ZZZZ numerical emission standards, the notifications under §63.6645 do not apply.
§§63.6645(g) and (h)	None	These sections are not applicable to the engines since no performance test under Subpart ZZZZ is required.
§§63.6650(a) and (b)	None	These sections do not apply since the engines meet none of the criteria in Table 7.
§63.6650(c)	None	This section does not apply since it pertains to Compliance Reports (which the permittee does not have to submit since §63.6650(b) does not apply).
§§63.6650(d) and (e)	None	These sections do not apply since there are no applicable Subpart ZZZZ emission limitations or operating limitations, and a CMS is not employed.
§63.6650(f)	6.5.1.	This section is an applicable requirement to report deviations (as defined in 40 C.F.R. §63.6675). This requirement is modified for insertion to the permit.
§63.6650(g)	None	This section does not apply since it pertains to new or reconstructed stationary RICE which fire landfill gas or digester gas.
§63.6655(d)	6.1.4.	This section is applicable, and in Table 6 to Subpart ZZZZ, item 9 provides the applicable requirements for an existing, non-emergency 2SLB stationary RICE located at an area source of HAP to demonstrate continuous compliance.
§63.6655(e)(3)	6.4.1.	This section applies to the compressor engines.
§63.6655(f)	None	This section does not apply since it pertains to emergency stationary RICE.
§63.6660	6.4.2.	This section applies to the Subpart ZZZZ records, and is applicable to the recordkeeping of §63.6655(e).

Note that 40 C.F.R. 63 Subpart ZZZZ does not apply to the Capstone C-60 microturbines (AUX02, AUX03) since they are not reciprocating internal combustion engines.

## II. Miscellaneous Changes

- a. The format of the table of contents has been revised to match current “boilerplate”.
- b. Several of the emission units descriptions have been revised in permit subsection 1.1 to match the requested description in the renewal application.
- c. The language of conditions 3.1.1. and 3.1.2. has been revised to match current language of 45CSR6.
- d. The citation of authority for condition 3.1.3. has been updated since 45CSR15 has been repealed and 45CSR34 now adopts 40 C.F.R. Part 61.
- e. Condition 3.3.1.d. has been added to the Title V “boilerplate” and the citation of authority has been revised.
- f. The language of conditions 3.5.3. and 3.5.5. has been revised to account for the requirement to submit the annual certification to the USEPA in electronic format only.
- g. The spelling of the next to the last word in condition 5.1.8. has been corrected even though it is misspelled in the underlying permit and in the current Title V permit.
- h. The capacities of tanks TK01, TK02, TK03, and TK04 have been revised according to the permittee’s June 14, 2011, email correspondence. Also, the installation date for TK04 was revised.

## Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. **45CSR10 – To Prevent and Control Air Pollution from the Emission of Sulfur Oxides for Certain Sources.** Compressor Engines (EN01, EN02): Since the last modification of permit R30-03300100-1996, WVDEP has determined that this rule does not apply to natural gas-fired engines (EN01, EN02). Boiler (BLR02): The 2.5 MMBtu/hr boiler meets the exemption at 45CSR§10-10.1., which states, “Any fuel burning units having a design heat input under ten (10) million BTU's per hour will be exempt from section 3 and sections 6 through 8.” Rule section 4 and 5 are not covered by this exemption. 45CSR§10-4 sets SO<sub>2</sub> limits from source operations. 45CSR§10-4 does not apply to BLR02 because it is not a “source operation” as defined in 45CSR§10-2.19. 45CSR§10-5.1. prohibits combustion of refinery process gas streams or other process gas streams that contain certain concentrations of hydrogen sulfide. 45CSR§10-5.2. pertains to by-product coke operations. The permittee’s source BLR02 is not subject to either of these subsections; therefore, 45CSR§10-5 does not apply to BLR02.
- b. **Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.** The facility has not made any changes that trigger a PSD modification; therefore, the requirements of the GHG tailoring rule are non-applicable.
- c. **40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** This subpart applies to manufacturers, owners, and operators of stationary compression ignition internal combustion engines that have been constructed, reconstructed, or modified after various dates, the earliest of which is July 11, 2005. All of the engines (EN01, EN02) at the facility are spark ignition IC engines, and therefore the requirements of this subpart do not apply.
- d. **40 C.F.R. 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.** This subpart applies to manufacturers, owners, and operators of stationary spark ignition internal combustion engines that have been constructed, reconstructed, or modified after various dates, the earliest of which is June 12, 2006. All of the engines (EN01, EN02) at the facility were installed prior to 2006 and have not been modified or reconstructed, and therefore the requirements of this subpart do not apply.
- e. **40 C.F.R. 60 Subparts D, Da, Db, and Dc.** These subparts apply to steam generating units of various sizes, all greater than 10 MMBtu/hr. The facility does not have any steam generating units greater than 10 MMBtu/hr; therefore, the requirements of NSPS Subparts D, Da, Db, and Dc do not apply.
- f. **40 C.F.R. 60 Subparts K, Ka, Kb.** These subparts apply to storage tanks of certain sizes constructed, reconstructed, or modified during various time periods. Subpart K applies to storage tanks constructed, reconstructed, or modified after 1973 and prior to 1978, and subpart Ka applies to those constructed, reconstructed, or modified after 1978 and prior to 1984. Both subparts K and Ka apply to storage tanks with a capacity greater than 40,000 gallons. Subpart Kb applies to volatile organic liquid (VOL) storage tanks constructed, reconstructed, or modified after July 23, 1984 with a capacity equal to or greater than 75 m<sup>3</sup> (~19,813 gallons). Each of the tanks at the facility have a capacity less than 19,813 gallons. As such, NSPS Subparts K, Ka, and Kb do not apply to the storage tanks at the facility.
- g. **40 C.F.R. 60 Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants.** According to 40 C.F.R. §60.631, a *Natural gas processing plant* (gas plant) means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.

Although this subpart includes requirements for compressors and storage tanks, it only applies to those units located at a natural gas processing plant as defined by the regulation. Even though the facility removes water from the natural gas, it does not extract *Natural gas liquids* (which excludes water, per the definition at §60.631). In summary, the operations at the facility do not meet the definition of a *Natural gas processing plant*; therefore, the requirements of this subpart do not apply to the emission units at the facility.

- h. **40 C.F.R. 60 Subpart LLL – Standards of Performance for Onshore Natural Gas Processing: SO<sub>2</sub> Emissions.** According to 40 C.F.R. §60.640(a), this subpart applies to each sweetening unit, and each sweetening unit followed by a sulfur recovery unit, at a natural gas processing plant. The facility does not meet the definition of a natural gas processing plant, nor does the facility include a sweetening unit. Therefore, the requirements of this subpart do not apply.
- i. **40 C.F.R. Part 63 Subpart HH – National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities.** According to 40 C.F.R. §63.760, Subpart HH is applicable to emission points that "are located at oil and natural gas production facilities that meet the specified criteria". The facility is not considered to be within the natural gas production source category since it does not meet the definition of *Facility* in 40 C.F.R. §63.761. Rather, it is categorized as a natural gas transmission and storage facility, which is potentially subject to 40 C.F.R. 63 Subpart HHH.
- j. **40 C.F.R. Part 63 Subpart HHH - National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities.** According to §63.1270(a) "This subpart applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of hazardous air pollutants (HAP) emissions as defined in §63.1271." While the facility is considered to be within the natural gas transmission and storage source category, it does not meet the potential HAP emissions threshold criterion (by use of the federally enforceable permitted flare to gain synthetic minor status for HAPs). The potential HAP emissions of the facility do not exceed the major source thresholds; therefore, this regulation does not apply to the facility. Further, the regulation does not contain any area source provisions.
- k. **40 C.F.R. 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers.** According to 40 C.F.R. §63.11195(e), a gas-fired boiler as defined in §63.11237 is not subject to this subpart and to any requirements of this subpart. The definition states that a "*Gas-fired boiler* includes any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year." The gas-fired Ajax Boiler (BLR02) combusts only natural gas, and does not combust solid or liquid fuels. Therefore, BLR02 meets the exemption in §63.11195(e) and this rule does not apply.
- l. **40 C.F.R. 64 Compliance Assurance Monitoring (CAM).** This is the second permit renewal for this facility. At the time of the first renewal, CAM was determined not to be applicable to the sources at this facility. Therefore, a CAM applicability determination is not required.

### Request for Variances or Alternatives

None.

### Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.



### **Comment Period**

Beginning Date: June 21, 2011  
Ending Date: July 21, 2011

All written comments should be addressed to the following individual and office:

Denton B. McDerment, PE  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Point of Contact**

Denton B. McDerment, PE  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478

### **Response to Comments (Statement of Basis)**

(Choose) Not applicable.

**OR**

Describe response to comments that are received and/or document any changes to the final permit from the draft/proposed permit.